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AUTHOR King, C. Yvonne; And Others
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ABSTRACT

A study was undertaken at the request of the Orem (Utah) Public Library administration to identify the library's strengths and weaknesses, and to measure how close they were to achieving their target goal of 100% effectiveness in the areas of referral, accuracy, and consistency, in order to improve the quality of reference services. Data were collected using unobtrusive measures. Proxy library users posed each ready reference and referral question to three different reference librarians to check for consistency. Of the full- and part-time librarians at Orem, one had a Masters of Library Science degree, one had a Masters of English, five had four-year bachelors degrees, and one had an associate degree. The questions were asked over the course of 15 days so that each librarian would be asked at least two ready reference questions and two referral questions. The library achieved an overall accuracy rate of 59.2%, which corresponds closely with rates reported in similar studies. Comments and observations from proxies suggest that a lack of awareness may exist among reference librarians as to the information contained in the reference collection, and it is suggested that librarians may benefit from regular in-house training to increase their familiarity with the reference collection and outside sources. (17 references) (SD)

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AN UNOBTRUSIVE OPERATIONS STUDY OF THE OREM PUBLIC LIBRARY FOR REFERRAL, ACCURACY, AND CONSISTENCY

by

C. Yvonne King

Rong Wang

David R. Zielke

A Research Proposal

Submitted to the

School of Library and Information Sciences

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In Partial Fulfillment

of the Requirements of

L. I. S. 696

Instructor: Dr. Marsha Broadway

APRIL, 1990

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CHAPTER 1

INTRODUCTION

Effective librarians are concerned with providing the best service possible to their library's users. By becoming aware of strengths and weaknesses through an in-depth analysis, and by being willing to change accordingly, librarians can better understand how well they are meeting user needs. This study was undertaken at the request of the Orem Public Library administration to identify their strengths and weaknesses and to measure how close they were to achieving their target goal of one hundred percent effectiveness in the areas of referral, accuracy, and consistency. The library reference librarians are, therefore, concerned with maintaining or improving the quality of their reference information service.

The Orem Public Library is located in northern Utah in the city of Orem, convenient to several other towns between Provo and Salt Lake City. It is not a large library, containing about 130,000 volumes. However, according to Xanthe Farnworth, the Orem Public Library Reference Evaluation Coordinator, it is one of the busiest in the state, having on an average of nearly one thousand library user visits per day.

Statements of the Problem

To what extent does the reference service at the Orem Public Library meet the target goal of the library in the area of referral?

To what extent does the reference service at the Orem Public Library meet the target goal in the area of accuracy?

To what extent does the reference service at the Orem Public Library meet the target goal of the library in the area of consistency?

This study was not a replication of a previous study so a comparison of previous performance could not be conducted. This study, however, was designed to be replicable so that future studies can be conducted, if desired, to measure the change in the level of service over time.

The purpose of this study was to gather the data necessary to identify the performance levels for referral, accuracy, and consistency at the Orem Public Library, to compare the data with the objectives and goals set by the Orem Public Library, and to identify the differences between the ideal and the measured reality.

Importance of the Study

By applying the information gleaned by this study, the OPL reference librarians may be able to improve the quality of their referral and reference service.

Research Questions

1. How frequently do the OPL reference librarians make correct referrals?
2. How frequently do the OPL reference librarians contact the referral source for the library user?
3. Does time spent on the reference transaction influence the accuracy of the information given?
   A. Does time spent on a negotiation transaction influence the accuracy of the information given?
   B. Does time spent on a referral transaction influence the accuracy of the information given?
   C. Does time spent on a ready reference transaction influence the accuracy of the information given?
4. How frequently do the OPL reference librarians give correct answers to reference questions?
5. How frequently do the OPL reference librarians give partially correct answers to reference questions?
6. How frequently do the OPL reference librarians give incorrect answers to reference questions?
7. How frequently does the OPL reference librarians give no answer to reference questions?

8. To what extent do different OPL reference librarians give consistent answers to the same reference question?

Assumptions

By doing this study, the information may be useful to OPL in improving reference service to its library users.

Definitions

Accuracy: Correct and complete information that answers a library user's reference question. In this study, this included negotiation, referral, and ready reference questions.

Consistency: Different reference librarians providing the same or similar answer to a reference question.

Correct Answer: Information which matches 100 percent with the accepted standard established by the researchers and the OPL Reference Evaluation Coordinator.

Incorrect Answer: No match as to information needed as established by the researchers and the OPL Reference Evaluation Coordinator.

Library User: A person who uses library materials or services at OPL, preferred to the term reader, since library collections include materials that may be read, viewed, or listened to; and to the term patron, which denotes library advocate or supporter (Young 1983, 132).

No Answer: A statement or action by the reference librarians at OPL indicating they do not know or they did not attempt to answer a reference question, or that they were unwilling or unable to name a specific source.

Partially Correct Answer: An answer that contains part of the accepted standard answer established by the researchers and OPL Reference Evaluation Coordinator but missing at least one element.

Proxy Library Users: Nine members of the Brigham Young University School of Library and Information Sciences Winter 1990 696 Reference Evaluation class and nine people chosen by these members, who received proxy instruction and who asked questions at the OPL between March 5th and March 21, 1990.

Reference Librarians/Information Staff: All part-time, full-time, and volunteer reference employees who staff the information desk and provide information at OPL.

Reference Question: Any request by a library user for information or assistance in locating information that involves a verbal encounter between the user and a member of the reference staff (Young 1983, 188).

Reference Transaction: An information contact which involves the use, recommendation, interpretation, or instruction in the use of one or more reference sources, or knowledge of such sources by a reference

librarian. The transaction does not include the wait time for service.

Referral: Directing a library user with an information need to the resource or resources in or outside the library that can meet the need.

Referral Contact: Calling directly by telephone to the referred source or sources for the library user and making sure of an answer to the question or making sure the referral could answer the question.

Referral Source: The resource or resources in or outside the library used to meet the referral information need.

Time Spent: The measurable duration in minutes of a reference transaction.

CHAPTER 2

LITERATURE REVIEW

Although referral, or Information and Referral (I&R) as it is called by many, has been available in public libraries since the 1960's, most studies have focused on reference and user satisfaction. Still, many information sources are available for referral. However, a literature search provided only a few citations on accuracy and none specifically on consistency.

Referral

The greatest problem with referral has been in defining what it is. Hawley said that the act of referring "seems to be influenced by employee's personal qualities, the outside resources referred to, and the individual being referred" (1987, 144). Some librarians see it as a valuable reference service; others consider it to be just a desk drawer full of index cards. Other traditional referral techniques include using the telephone directory and keeping a file of community organizations.

Childers claims these referral techniques are not enough. Referral, he says, requires a closer relationship with the client and more awareness of social services. It

requires a more active role of the librarian--the librarian needs to be concerned with "improvement of the client's lot as opposed to the improvement of the client's level of being informed" (1979, 2036).

Referral has been broadly defined to include traditional and non-traditional services for helping the library user with information available outside the library. Traditional services include simple information giving, complex information giving, referral, and constructing a public resource file. Simple information giving provides the library user with the asked-for name, telephone number, etc. Complex information giving involves deeper negotiation to find the underlying need. Referral is helping the library user by contacting an outside resource through calling, making an appointment, or similar action (Tifft 1988, 251; Baker and Ruey 1988, 246).

Non-traditional services include such things as giving advice about resources, following up on the library user by seeing if the proper resource was contacted or help was received, acting as an advocate on behalf of the library user, providing formal feedback on social services, counseling, providing transportation, and providing an escort to an outside resource (Tifft 1988, 251; Baker and Ruey 1988, 246).

In his 1979 study, Childers' discovered that only thirteen percent of libraries nationwide offered an active

referral service, that is, actually calling or making contact with the outside resource for the client. About 68 percent of the libraries provided simple information, 51 percent gave advice, both of which did so without contacting the source (1979, 2036-7).

Childers' study also found that the size of the library mattered little as to the type of referral service given. What did matter most was the budget. This service requires the staff and time necessary to do the job, to train the staff, and to build up a resource file. Referral also requires public relations and promoting the service. It takes more money and more staff than many libraries can afford, therefore, many are reluctant to even begin such a service (Childers 1979, 2039).

Some libraries do not even include referral as one of their services. Library users go away empty handed because of differences in policies among referral sources and because some do not want to share their resources (Duke 1985, 22).

Who are those seeking referral? According to Beagle, they can be classified basically into three categories: *older adults* wanting special programs, *consumers* needing financial advice and counseling, and *newcomers* needing to know about local agencies and services (1984, 181). Knowing the categories of users, however, does not mean that they will receive complete and correct information.

Accuracy

Jahoda indicated that in order for an answer to be correct, it had to be accurate and that if it was to be complete, it needed to include "all essential information related to the query" (1980, 85).

After conducting a study of reference services in one county in New York, Childers found that the chances of getting the correct answer to his questions was about 50 percent. The size of the library mattered little--no library could be relied on for the correct answer every time. Larger libraries, however, were better, but not consistently so, at negotiation and referral than were the smaller ones (1980, 927).

Other Information

Not all libraries had formal policies for handling inquiries and the librarians had to decide just what library users could expect from their library. Barry suggested that librarians must get to know the user's needs to be able to build on resources, keep up with technology and current trends, focus on relevant information, and work to function as a bridge between the local institution and the outside world (1988, 234-36).

In addition to developing the resources and skills necessary to provide correct answers and referrals, Clements said that a good referral agency (such as a library) should be trained in crisis intervention techniques, involve their

workers in in-house training, and provide outreach services to the community (1975, 20-22).

Although studies had been done to examine reference service quality, Rodger and Goodwin at the Fairfax County Public Library in Maryland, did an unobtrusive study to determine specific improvements that could be made. They believed that the best way to effect change in their library was to include the library staff in the planning and implementation of the study. In this way the program would find acceptance, and any problems found through the study would be problems for the library system--not for an individual.

They discovered through the study that more information was needed about the services and resources offered by their library and that the library staff needed a refresher course in conducting complete reference interviews. The staff needed to learn better negotiation techniques to effect a greater average of accuracy.

By giving the staff an opportunity to pose as library users, the librarians were able to see themselves as others saw them. They found that most were able to do very well at answering ready reference questions, but not so well at answering questions that needed negotiation. In their self evaluations they admitted the problems and changes they needed to make to improve reference service (Rodger and Goodwin 1987, 137-147). Since most reference librarians

care about the service they give, unobtrusive studies can help discover areas that need improvement.

Summary

As Childers indicated, there have been studies conducted over the years, unobtrusive and otherwise, to determine different levels of performance. There are always mixed responses to the studies but often they have been the motivators of new goals, guidelines, and training for library staff members and administration (Childers 1980, 927). The individual library and its librarians need to decide how much information they want, what kind of library users they choose to serve, and how much change they, as a library, are willing to make.

CHAPTER 3

METHODOLOGY

The study sought to determine the accuracy and consistency of answers given by the OPL reference librarians for referral, ready reference, and negotiation questions. The following sections describe: (1) the methodology, (2) the population used, (3) the data collection procedures, (4) the instrument design, and (5) the limitations and assumptions used in this study.

Method and Design

An unobstrusive study was chosen as the method by which to gather data. Proxy library users asked ten ready reference and ten referral questions that had been designed by the Referral, Accuracy, and Consistency (RAC) group and twenty negotiation questions designed by a cooperating research team. Each question was asked by a proxy library user three times to different reference librarians so that a consistency measurement could be taken.

Unobtrusive tests using proxy library users and questions designed to elicit referral and ready reference answers were developed to measure referral performance, accuracy, and consistency. To gather data on each research

question, the RAC group designed the Proxy Library User Questionnaire for proxy library users to complete following a reference transaction. To answer the problem statements, the actual data from the questionnaire was compared to the objectives and target goals set by the OPL for referral, accuracy, and consistency.

During the period of the 5th to the 21st of March 1990, proxy library users asked selected questions of the reference librarians and recorded the responses they received on the questionnaire. Ten questions designed to elicit referrals and ten others designed to elicit answers to ready reference questions were asked at the general reference desk, each question being asked three times. Although each question was only asked three times to three different librarians, all the librarians were tested for both referral and ready reference. Responses were then coded, tallied, and analyzed using SPSS-X statistical software.

Population

The population for this study included the full-time, part-time, and volunteer reference librarians at the OPL general reference desk. The OPL reference librarians with advanced education hold one Masters of Library Science degree, one Master of English degree, five four-year bachelors degrees, and one associate degree.

The data from this study were not generalizable to other populations.

Data Collection Procedures

Proxy library users for this study were members of the Brigham Young University School of Library and Information Sciences 1990 Winter Semester 696 Library Operations Research class. Each class member was then asked to obtain one additional proxy library user from the members of their families or friends. Each class proxy library user was instructed in class by the Referral, Accuracy, and Consistency (RAC) group on March 9, 1990, during a review of the instruments. They were taught the actual step-by-step procedures to follow in asking the referral and ready reference questions and in filling out the questionnaire. These procedures, Questionnaire Instructions (see Appendix B), and Proxy Instructions (see Appendix C) were included with each Master List of Questions (see Appendix D) and given to each class proxy library user. The proxy library users were then assigned the specific questions to ask the OPL reference librarians during the times assigned on the Question Assignment Matrix (see Appendix E). Upon completion of the class review, each class proxy user was required to teach the same steps and procedures to his or her own additional proxy library user. A second copy of all the instruments were given to each class proxy library user for his/her additional proxy library user. If any proxy

library users had questions about the instruments, these were answered before data gathering started.

The proxy library users were reminded to return the completed questionnaire to a member of the RAC group or to the designated drop box in the student lab, within 24 hours of completion.

Instruments

The Proxy Library User Questionnaire and Questionnaire Instructions can be found in Appendix A and B. The Proxy Instructions (see Appendix C) were developed from ideas from Adams et al., 1989.

The first research question measured the percentage of correct referral at the OPL. This was answered through using questionnaire questions 5 and 7 of "were you referred" and "what was the answer received".

The second research question sought to determine how often the reference librarians contacted the referral source for the library user. This question was answered using questionnaire question 6, "did the reference librarian contact the referral," and can be considered simply an informative question.

The third research question sought to determine the percentage of influence that time spent on the reference transaction had on the accuracy of their negotiation, referral, and ready reference services. Questionnaire questions 4 and 7; "amount of reference transaction time,"

and "answer received" were used to answer this research question. These questions were also asked by the negotiation group.

The next four research questions sought to determine the correctness of the reference question responses given by the reference librarians. Questionnaire question 8, "do you consider the answer to be: correct, partially correct, incorrect, or no answer," was answered subjectively by the proxy library users, the Reference, Accuracy, and Consistency group, and when necessary to break a tie, by the OPL Reference Evaluation Coordinator. If any discrepancy still remained, the proxy library user was contacted and both he or she and the RAC group reevaluated their responses. Changes in the answers given were then accepted to allow a majority opinion. The negotiation questions were also compared for accuracy using the same methodology.

The last research question on consistency was answered through comparing the three different answers received for Question 7, "what answer did you receive," on the questionnaire for the same reference question. By seeing how varied or similar the answers were, consistency could be measured. The answers to the negotiation questions were also compared for consistency by the same methods.

The Master List of Questions (see Appendix D) consisted of a total of 20 questions. All ready reference questions could be answered from OPL reference sources.

The Question Assignment Matrix (see Appendix E) was created by members of the Winter Semester 1990 LIS 696 Library Operations Research class, so that all reference librarians would be asked at least two referral questions and two ready reference questions. However, the library reference librarians modified their work schedule prior to and during the data collection period causing the proxy library users to often modify the matrix schedule.

All instruments were reviewed by Dr. Broadway and the OPL Evaluation Coordinator for applicability and acceptability.

The questionnaire was pretested by the RAC group and two other members of the class on March 3 and 4, 1990 at the Provo Public Library. The queries to be used in the pretesting were selected through simple random sampling.

After pretesting, the participants were asked about the questionnaire and their reactions to it. According to the responses given, only one possible modification could have been made to the questionnaire. Due to an unusually long wait by one of the participants for assistance at the reference desk, question 3, concerning the amount of wait time, could have been modified. A fourth choice allowing a selection of "Over 10 minutes" instead of "Over 5 minutes", and changing the third selection to "Between 6 to 10 minutes" was rejected.

Limitations

The major limitation to this study was that it was confined specifically to the reference librarians at the OPL. Additionally, a time constraint existed; only fifteen days in March 1990 were available to collect the data.

Assumptions

The following assumptions were made:

1. A referral to the appropriate resources in or outside the OPL would result in being able to get an accurate answer to the library user's information need.
2. The OPL reference librarians were unaware of the time period when the data was collected.
3. The proxies read the "Proxy Instructions," understood, and followed the directions.
4. There was no bias in data collecting and in analyzing the data.
5. Reference questions used with the proxy library users were representative of questions received at OPL.
6. The reference librarians at the OPL did not discuss the questions among themselves and thereby effect the unobtrusiveness of the study.
7. The range of difficulty of the questions were representative of questions received at OPL.

CHAPTER 4

ANALYSIS OF DATA

The questionnaire responses and the negotiation questionnaire responses for accuracy and consistency were analyzed using SPSS-X to perform tests of (1) frequencies, (2) means, (3) crosstabulations, which were used to study the relations between responses to two variables that have a small number of possible answers, and (4) a chi-square test, which was used to study the expected results for the amounts in the crosstabs cell against the actual amounts observed, using a .05 standard level of significance.

Two exceptions to analyzing the data by computer were:

1. The consistency of the answers to questionnaire question 7, "What answer did you receive?" Consistency was analyzed manually by comparing the answers received for each question among one another for consistency.
2. The accuracy of the answers were judged first by the proxy library user on the instrument. The RAC group then judged each answer by the definitions it set forth. If the judgements were different, then the answer was brought to the OPL Reference Evaluation Coordinator for her deciding vote. If none of these judgements matched, the RAC group contacted the

appropriate proxy library user and reevaluated their responses to reach a decision.

Correct Referrals

How frequently do the OPL reference librarians make correct referrals? Ten referral questions were asked three times each for a total of thirty questions. The Orem Public Library reference librarians made correct referrals eleven out of thirty times, or 36.7 percent of the time.

Referral Source Contacts

How frequently do the OPL reference librarians contact the referral source for the library user? Out of the thirty referral questions asked, none of the reference librarians contacted the referral source for the library user.

Reference Transaction Time

At the request of the OPL Reference Evaluation Coordinator, proxy library users were asked how many minutes they waited for service. Of the sixty questions asked by the proxy library users for referral and ready reference, forty-five, or 75 percent waited less than two minutes for service. Fourteen, or 23.3 percent waited between two and five minutes for assistance. Only one, or 1.7 percent of the proxy library users waited over five minutes for service.

Does time spent on the reference transaction influence the accuracy of the information given?

A. Does time spent on a negotiation transaction influence the accuracy of the information given?

B. Does time spent on a referral transaction influence the accuracy of the information given?

C. Does time spent on a ready reference transaction influence the accuracy of the information given?

A chi-square test was computed to determine if the amount of time spent in the reference transaction influenced the accuracy of the answer. The test was invalid because more than twenty percent of the cells had less than five cases. Therefore, the influence of reference transaction time on accuracy could not be determined. The frequencies, however, showed that if the librarian could answer the reference question in two to ten minutes, a greater likelihood existed of the question being answered correctly. Of the 71 questions that received correct answers, 52 were answered in two to ten minutes, 14 in less than two minutes, and five in more than ten minutes.

Correct Reference

Ten ready reference questions, ten referral questions, and twenty negotiation questions were asked three times each for a total of 120 questions. To determine how frequently the Orem Public Library reference librarians gave correct,

partially correct, incorrect, or no answers to reference questions, a crosstabulation was computed. Seventy-one of 120 questions, or 59.2 percent, were answered correctly. Twenty-three questions of 120, or 19.2 percent, were answered partially correct. Fifteen, or 12.5 percent, were answered incorrectly; and eleven, or 9.2 percent were not answered.

Consistency

Consistency was measured by asking the same reference question to three different reference librarians and then determining the percentage of similar or same answers to the question. Of the ten referral questions asked, twenty percent were answered consistently. Of that twenty percent, half were answered correctly and half were answered incorrectly. Eighty percent of the referral questions received a variety of answers from different reference librarians.

Of the ten ready reference questions asked, five were answered consistently. All of those were answered correctly. The remaining five questions were answered either incorrectly or only partially correctly and received different answers from different librarians.

Of the twenty negotiation questions asked, six, or thirty percent, were answered consistently. One hundred percent of those were correct. The remaining fourteen, or

seventy percent, of the total questions were answered either incorrectly or only partially correctly.

Observations

The following observations were noted by the proxy library users and the RAC group:

1. Some of the reference librarians used non-current information sources, resulting in partially or incorrect answers.
2. One of the questions was asked twice to the same librarian, which might bias the information and the study results.
3. For one of the referral questions, the cassette call numbers did not match the computer information given.
4. Once, a proxy library user was referred to a source but was not shown how to use the source, thus making it very difficult to find the answer.
5. Fifteen times a proxy was given more than one source as an answer.
6. Seven times a proxy was given the answer without the aid of a source.
7. Only one time did the librarian misunderstand the question.
8. Only once was an inside referral source contacted by the reference librarian.

9. In at least three cases, the proxies were sent to the stacks to find the answers without a specific source to check.

Target Goal Evaluation

The Orem Public Library administration set target goals of one hundred percent in the areas of referral, accuracy, and consistency. The reference librarians achieved 36.7 percent correct referrals for a difference of 64.3 percent. Of the 120 questions asked, 59.2 percent were answered correctly for a difference of 40.8 percent. Twenty percent of the reference questions were answered consistently, with only ten percent actually correct, for a difference of 90 percent.

CHAPTER 5

SUMMARY AND CONCLUSIONS

This chapter contains the summary, conclusions, recommendations, suggestions for improvement, and other pertinent information pertaining to the study.

Summary

This study determined to what extent the reference service at the Orem Public Library met their target goals of 100 percent effectiveness in the areas of referral, accuracy and consistency. To obtain the data needed, ten ready reference questions and ten referral questions were asked three times each at the Orem Public Library information desk to different librarians. Twenty questions from the Brigham Young University School of Library and Information Sciences 1990 Winter Semester 696 Library Operations Research class Negotiation study (Buckley, Orth, and Ricks 1990) were incorporated into this study for a total of 120 questions.

These questions were asked at the information desk over a period of fifteen days according to a matrix schedule (see Appendix E) so that each librarian would be asked at least two ready reference and two referral questions. However, as

explained in Chapter Three on page 18, the matrix was often modified because the OPL reference librarians changed their working schedules before and during the data collection.

Conclusions

The Orem Public Library achieved an overall accuracy rate of 59.2 percent, which corresponds closely to accuracy rates reported in similar studies. Most studies seem to indicate that 50 percent accuracy is about average (Childers 1980, 927).

Comments and observations from proxies suggested a lack of awareness may exist among the reference librarians as to the information contained in the reference collection. All of the ready referene questions the proxies asked could have been answered using reference materials available at the library.

Recommendations

The Orem Public Library reference librarians were, for the most part, friendly and willing to help. The reference librarians may benefit from regular in-house training to increase their familiarity with the reference collection and outside referral sources. If the reference librarians would participate in the training, this might also benefit the library users . Further, the accuracy and consistency levels would likely increase for the reference librarians,

thus helping them work toward fulfilling the target goals of the Orem Public Library.

Suggestions for Improving the Present Study

A difference of opinion existed between the RAC group and the OPL Reference Evaluation Coordinator concerning the definition of what constitutes a "No Answer."

In order to avoid this type of conflict in the future, all definitions should be agreed upon by the library representative and the researchers before a similar study is undertaken.

During data collection, researchers observed that some Orem Public Library reference librarians were aware of the proxies. However, in the RAC group's opinion, this knowledge did not significantly alter the results.

All possible answers to the questions for the study were not verified in advance. One of the questions should have been reworded to indicate the necessity for current information only available at the referral source indicated. This type of problem cannot easily be corrected.

Sometimes the proxy library users did not indicate the actual answer to the reference question, but instead entered the call numbers and source names for the answers they were given. This problem might be remedied by improved proxy instructions and/or a reward system for correctly completed questionnaires.

Two different sources gave different answers to one of the ready reference questions. Procedures need to be modified so that different answers could be accepted as correct after verification by the study group.

With more time the questions could have been spread out to be less obvious or memorable to the reference librarians.

Suggestions for Further Research

This study should be replicated in three to four years at the Orem Public Library to identify improvements made since this study.

Similar studies at other public libraries throughout the country could provide comparable data for future studies at the Orem Public Library. These studies could also provide an information basis for reevaluating the library's target goals to make them more realistic and obtainable. In addition, these studies could provide a basis for comparing the growth and change within the Orem Public Library.

APPENDIX A

QUESTIONNAIRE

1. Date of query _____

2. Reference question identification number _____

3. How long did you wait for service?

   A. Less than 2 minutes_____

   B. 2 to 5 minutes _____

   C. Over 5 minutes _____

4. Time reference transaction started _____.

   Time reference transaction finished_____.

5. Did the reference librarian refer me?

   Yes _____ No _____

   If YES, go to Question 6.

   If NO, go to Questions 7 and 8.

6. Did the OPL reference librarian contact the outside referral source for the library user?

   Yes _____

   No _____

7. What answer did you receive?_____

   _____

   _____

   A. Source used, if any _____

   _____

8. Do you consider the answer to be:

Correct ____ Why ?_____

_____

Partially Correct ____ Why?_____

_____

Incorrect ____ Why?_____

_____

No Answer ____ Why?_____

_____

APPENDIX B

QUESTIONNAIRE INSTRUCTIONS

Please read the Proxy Instructions first, then read these instructions before filling out the questionnaire.

For each question on the questionnaire, an individual instruction has been included below. The numeration on this instrument is the same as the questionnaire for easy access and reference. When filling out the questionnaire, please write with a pencil.

1. **Date of query.** Enter the data when the query was made as follows: March 01.

   Month Day

2. **Reference question identification number.** Enter the reference question identification number found on the master question list for the specific question you will be asking for this questionnaire.

3. **How long did you wait for service?** Check the amount of time you feel was spent from the time you were at the reference desk ready to begin the reference transaction to the time when the reference librarian acknowledged you and began the reference transaction.

4. **Time reference transaction started _____.** Enter in the time the transaction started in minutes by normal time entries, i.e. 10:00 A.M. or 3:47 P.M.

Time reference transaction ended _____. Enter in the time the reference transaction ended in minutes by normal time, i.e. 10:10 A.M. or 3:49 P.M.

5. **Did the reference librarian refer me?** Answer either yes or no based on the definition of referral: Directing a library user with an information need to the resource or resources in or outside the library that can meet the need.

   After answering this question, follow the instructions immediately after this question by either going to question 6 if you answered yes and continuing, or by going to question 7 and 8 if you answered no to question 5.

6. **Did the OPL reference librarian contact the referral source for the library user?** Answer either yes or no based on the definition of contact: Calling directly to the referred sources for the library user and making sure of an answer to the question or making sure the referral could answer the question.

7. **What answer did you receive?** Write down as much as possible the context of the answer received from the reference librarian, summarized if necessary, with the proper title, year published or copyright date, and the page numbers where found, if a source was used to find the answer.

8. **Do you consider the answer to be:**

Correct **Why?** _____

Partially Correct **Why?** _____

Incorrect **Why?** _____

No Answer **Why?** _____

These answers are to be based on your own judgement and the definitions of these categories given below. Check the answer you believe is right and briefly state why you feel it should be in that category.

Correct Answer : Information which matches 100 percent with the accepted standard determined by the OPL Reference Evaluation Coordinator.

Partially Correct Answer : An answer that contains part of the accepted standard determined by the OPL Reference Evaluation Coordinator but missing at least one element.

Incorrect Answer: No match as to information needed as determined by the authors of this research project and the OPL Reference Evaluation Coordinator.

No Answer: A statement or action by the reference librarians at OPL indicating they do not know or they did not attempt to answer a reference question, or that the were unwilling or unable to name a specific source.

Upon completion of these steps, please return the questionnaire to the Referral, Accuracy, and Consistency group within 24 hours.

APPENDIX C

PROXY INSTRUCTIONS

Please read these instructions first, then read the Questionnaire Instructions before filling out the questionnaire.

We have attached to each master question list a copy of the Proxy Instructions. Please do not detach these.

1. Be certain you understand the types of question asked on the Referral and Ready Reference Questionnaire so you will be able to answer them correctly.
2. Be sure you fully understand the question you ask so if the Orem Public Library Reference Librarian (OPLRL) asks you for further clarification you can provide an intelligent response. Do not suggest types of sources or places where the answer may be obtained: let the OPLRL make the suggestions. The answer to the question is provided to you so you may respond intelligently, however, the answer should not be used to prompt the OPLRL.
3. If the OPLRL asks for a specific reason for needing the information, indicate that you need the information for a class assignment or to write a paper, or you can feel free to give a creative answer.

4. Try to act as normal and natural as possible. Do not allow the OPLRL to see the paper with the question on it or the Questionnaire. You might find it useful to write the question or take a few notes from it on separate piece of paper so you can show it to the OPLRL if you should be asked to do so. This could help you with call numbers, spelling, etc. Fill out your Questionnaire out of sight of the reference desk area.
5. Do not argue or be persistent in trying to obtain an answer. Take the answer given you even if it is incorrect. If an answer cannot be obtained, do not prompt or help the OPLRL with clues or with suggestions.
6. If the OPLRL tells you to find an answer on your own and suggests a specific source which contains the correct answer, consider that as a "partially correct" answer. If a generic source, i.e. "Check the encyclopedias", is used, consider that as a "no answer".
7. If you are asked to come back later when someone more knowledgeable can help you, consider that as a referral, but count the answer as a "no answer." If the OPLRL offers to take you to speak directly with professional librarian, continue with the transaction and write down the answer. This is not a referral.

8. If you are referred to a specific librarian (by name), at another floor, department, or outside source, score it as a referral.
9. If the OPLRL gives you an Interlibrary Loan request form to fill out, count that as a referral and take the form with you explaining that you will have to return it later.
10. If the OPLRL is able to answer you referral question without a referral, fill out the Questionnaire based on the answer and sources used.
11. When you have asked all of your questions and completed your Questionnaires, return the questions and the Questionnaire intact to the Referral and Ready Reference Group or to the drop box available in the MLIS student lab, room 5044, Harold B. Lee Library. Thank you very much for your time, effort, and willingness to help us with our study.

APPENDIX D

MASTER LIST OF QUESTIONS

Referral Questions:

1. **Where is a free or inexpensive medical clinic for adults around Provo?**

   UMAP, State and County Building, 150 East Center, Provo, 374-7011.

2. **Where can I get a passport?**

   County Clerk-Auditor 100 East Center, Provo

   White and Yellow pages 1989/90, Page 3 Blue pages: Utah City Government, Clerk Auditor, Passports, 370-8109.

   Provo Post Office, Main Office 95 W. 100 S., Provo.

3. **Where can I find a typewriter I can use?**

   BYU-Harold B. Lee Library, 3rd floor, room 3361, the Copy Word Processing Center. 378-3543.

   UVCC, through Campus Operator at 222-8000.

   Alexander's Print Shop - Orem 383 North State, 224-8666. Provo - 319 N. 200 W. 377-7770. 725 E. 820 N., 374-9992.

4. **I'm from Tennessee. Where can I donate used clothing?**

   Deseret Industries 1375 N. State, Provo, 373-7920.

   Community Thrift and Relief Store, 515 N. University Ave., Provo, 377-7676.

   In Yellow Pages under Second Hand Stores, P. 536.

5. **I need some business information sources on buying and selling stocks and bonds. Where can I go?**

   BYU, Tanner Building, Business Management, room 410, 4th floor, 378-3924.

6. **I'm flying to Florida but how can I have my car transported from here to Florida by train?**

   Railroads, page 490 Yellow Pages

   Rio Grande Railroad Freight Office, 200 E. 600 S. Provo, 373-1900.

   Union Pacific Railroad Company, Customer Service Center 1-800-272-8777, Yardmaster's Office, 1000 S. 400 E. Provo, 373-1780.

   Utah Railway Company, 1000 S. 400 E. Provo, 373-1760.

7. **How can I find out how two elementary schools averaged on the Achievement Tests?**

   Alpine School District Office, American Fork, 756-8400, ask for California Achievement Test Scores.

   For a compilation and comparison of all the schools, contact the Alpine School District office.

8. **Where can I buy old issues of comic books?**

   A World of Comics, 141 N. University Ave. Provo, 373-3482.

   Captain Salamander's Atomic Comics, 440 N. University Ave., Provo, 374-9058.

   Fantasy World Hobbies, 1774 N. University Parkway, Provo, 375-6440.

   Game World, 137 N. State, Orem, 224-9825.

9. **My son wants to join the army. Can you direct me to the local recruiter?**

   475 N. Freedom Blvd. 377-5815, P. 5 US Government, Blue pages.

10. **I need to find a record or cassette of Pavarotti singing "La Boheme". Can you tell me where I can find one?**

    Multi Media Desk, Lower level, OPL

Ready Reference Questions:

1. **What was the estimated population of the US in 1989?**
   1990 World Almanac Information Please 317.3 V. 3
   248,800,000.

2. **While driving through Yellowstone National Park a year ago I noticed a sign marking the Continental Divide. I don't want to sound dumb or anything, but what is it? Are there any other National Parks that fall on this line?**
   The World Almanac and Book of Facts p. 423, 1990 ed.
   031.02 W893.

3. **Paul Hogan, the star of "Crocodile Dundee" is now a household name. Can you show me a picture of this actor? I would also like to know how much schooling he has had (he sure seems smart), and how much money out of his own pocket was used to make this movie?**
   He dropped out of high school at 15. The film was made on a budget of $5.6 million, more than half of which came from the pockets of Hogan and John Cornell, the film's producer.
   Current Biography Yearbook, 1987, p. 238-240.

4. **Can you show me on a map where Djibouti is located?**
   Northeast Africa at the mouth of the Red Sea bordering on Somalia and Ethiopia. World Atlas

5. **Where can I find a picture of the woolly mammoth discovered in 1900 in Russia?**

   Encyclopedia Americana Vol. 22, p. 245.

6. **I want to be a college teacher. Where can I find what kind of education I would need and what salary to expect?**

   Salaries for all full-time faculty on 9-month contracts averaged around $35,000. Professors earn the most with an average of about $45,500 and Instructors earn the least with an average of about $21,300. Most faculty members enter the profession as instructors and have at least a master's degree.

   Occupational Outlook Handbook 1988-89, p. 113.

7. **What are the full titles of the Pope?**

   Under "pope", p. 118, Encyclopedia Britannica, Micropaedia Vol. VIII.

   Bishop of Rome, Vicar of Jesus Christ, Successor of the Prince of the Apostles, Supreme Pontiff of the Universal Church, Patriarch of the West, Primate of Italy, Archbishop and Metropolitan of the Roman Province, and Sovereign of the State of the City of the Vatican.

8. **What is a "jess" and who would use it?**

Webster's New Twentieth Century Unabridged Dictionary p. 983

A jess is a strap around a falcon's leg. Used by a falconer.

9. **What does the acronym AFL-CIO stand for?**

American Federation of Labor-Congress of Industrial Organizations

Acronyms, Initialisms, and Abbreviations Dictionary, 6th ed. vol. 1, p. 39.

10. **How do you pronounce KUDZU?** It's a vine that grows in the southeast.

Kood'zoo Encyclopedia Americana 1985, vol. 16 p. 574.

APPENDIX E

QUESTION ASSIGNMENT MATRIX

Day Librarian	Hours	LIS 696 Class Members and Questions Assigned
Monday		
A	10 - 2	David *N1, *RR1; Sheri N13, N14, RR7, *R6
B	12 - 6	Lynda N6, RR6 ; Yvonne R9
C	4 - 9	David N2, R1; Yvonne RR5; Jonathan N16, N18, R3; Dana RR9, N20; Sheri N14, N17, R6
Tuesday		
D	10 - 5	Sheri N14, R6; Thom N8, RR3; Yvonne N3, RR2
E	12 - 9	Thom N9, R2
F	4 - 9	Yvonne N4, R4, RR5
Wednesday		
A	10 - 2	Thom N8, N9, RR3, R2
E	12 - 9	Rong N5, RR10; David N1, RR1
D	3 - 9	Rong N12, R10; Jonathan N15, RR4. N16, R3; Lynda N6, RR6; Mary Ann N11, R7

* N = Negotiation Question
R = Referral Question
RR = Ready Reference Question

Thursday

E	10 - 6	Lynda N7, R5; Jonathan N15, RR4, David N2, R1
F	4 - 9	Sheri N13, RR7; Mary Ann N10, RR8; Rong N12, RR10; Yvonne N3, RR2, R9; David N1, RR1

Friday

B	9 - 2	Dana N19, R8; Rong N5, RR10
E	9 - 2	
G	2 - 6	Jonathan N18; Mary Ann N10, RR8; Thom N9, R2; Yvonne N4, R4
B	9 - 2	Dana RR9, N20
G	2 - 6	Mary Ann N11, R7; Lynda N7, R5; Sheri N17; Yvonne N3, RR2, RR5

Saturday

F	10 - 2	Rong N5, RR10; Mary Ann N11, R7; Jonathan N16, N18, R3
E	10 - 6	Rong N12, R10
C	10 - 2	Dana N19, R8; Mary Ann N10, RR8
G	2 - 6	Dana RR9, N20; David N2, R1

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